## REMARKS

Applicants have filed a Request for Continued Examination to pursue substantive prosecution of this application. Reconsideration is respectfully requested.

As a preliminary matter, Applicants submitted with their after final amendment on December 10, 2003 a second certified copy of the Swedish priority document. Acknowledgement of receipt of the certified copy of the priority document is respectfully requested.

Claims 10, 11, 13, and 15 stand rejected under 35 U.S.C. §102(b) as being anticipated by Bridle et al. This rejection is respectfully traversed.

Bridle discloses a spectral distance processor for comparing spectral taking from speech in the presence of estimated background noise. As explained on page 2, lines 18-26, both the input spectrum and the template spectrum are masks with an estimate of input noise. Samples of each masked spectrum are marked with a noise mark depending on whether the sample is estimated to be speech or noise. Because Bridle's spectral distance processor is intended to be operated with fluctuating and high noise levels, it is quite sophisticated and complex.

Although there may be situations where such complexity and sophistication are appropriate, there are other instances when they are unnecessary. One such instance is when the noise level conditions are relatively low and the noise spectrums predominantly come from known noise signals rather than unknown signals that require estimation as in

Bridle. An example of a known noise signal is a ring signal generated by a mobile phone. Ring signals have a well-defined known frequency spectrum and may be pre-stored in memory. Of course, several known noise spectrums may also be stored in memory. The spectral distance calculator identifies and selects the current noise spectrum to be used in the masking procedures.

In the Advisory Action, the Examiner contends that the first known noise signal reads on "the background noise." But this background noise is unknown. All claims explicitly require that the noise signal be "known." The Examiner fails to address this difference, either in the final Office Action or in the Advisory Action.

Claims 22 and 36 further recite that the first known noise signal is "used to perform a function unrelated to speech recognition." There is no teaching in Bridle of using the background noise identified on page 2 to perform any function—let alone a function unrelated to speech recognition. Non-limiting examples of a first known noise signal used to perform a function unrelated to speech recognition include "a periodic signal with a repeating pattern used to indicate a message" (claims 31 and 45), "a ring signal used to indicate a message" (claims 32 and 46), "a melody or a buzzer signal used to indicate a message" (claims 33 and 47), "a signal output from a speaker" (claims 34 and 48). Claims 35 and 49 recite, for example, that "the function unrelated to speech recognition is to drive a speaker." A non-limiting example of the claimed input spectrum is an input signal corresponding to user speech input to a microphone, such as an automatic voice answering (AVA) command, in the presence of a known ringing signal.

In this case, a telephone user answers an incoming call (indicated by a known ringing signal) using a particular voice command (corresponding to the input signal). Of course, the claimed known noise signal may be used to perform other functions unrelated to speech recognition.

Another distinction is that Bridle's template noise spectrum is an estimate of the noise—it is not the actually known noise signal as recited in claims 22 and 36. There is no need to estimate the known noise signals in claims 22 and 36 because they are already known and stored in memory. Bridle also fails to disclose the advantage of reduced complexity in the software/circuitry needed to implement the claimed spectral distance calculator because the noise signal is known and not estimated.

With respect to claims 23 and 37, the Examiner contends that Bridle teaches zeroing the spectral distance "for each frequency input speech spectra which is due to noise (Page 2, lines 63-64)." However, page 2, lines 63-65, specifically say "instead of a sign a zero value (which denotes a perfect match) to the distant for such a channel, B is giving the *non-zero* value D*" (emphasis supplied). Thus, Bridle teaches the opposite of what the Examiner contends—that for a noise frequency, the spectral distance is given a non-zero value.

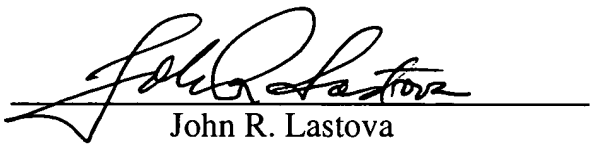
Regarding dependent claims 25 and 39, the Examiner refers to page 3, lines 10-11 which state that "the spectrum distance is just the sum over all the channels of all the values of D from (c)." Where in this text is there a clear teaching of setting $A_i$ "equal to zero if a frequency $f_i$ of the input signal is due to any known noise and Ai is unity if no

noise is present at the frequency $f_i$?" As pointed out with respect to claims 23 and 27 above, D is given a non-zero value D* for noise channels.

There are several obviousness rejections which combine Bridle with secondary references. But since the rejections based upon Bridle alone are improper, all of the rejections are improper and should be withdrawn. The application is now in condition for allowance. An early notice to that effect is earnestly solicited.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: 
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